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October 25, 2017

Marlene H. Dortch, Secretary
Federal Communications Commission
445 Twelfth Street SW
Washington, DC 20554

RE: WC Docket No. 17-108

Dear Ms. Dortch:

On Monday, October 23rd, Sarah Morris, Director of Open Internet Policy at New America's Open Technology Institute ("OTI"), and I met with Commissioner Jessica Rosenworcel and Travis Litman, her Chief of Staff and Senior Legal Advisor, Wireline and Public Safety, to discuss matters in the above-captioned docket. I subsequently spoke briefly by telephone with Mr. Litman on Tuesday, October 24th, to provide additional source material for the presentations we made in the meeting on the 23rd.

Our presentations on the majority's ongoing attempt to repeal the Commission's successful 2015 *Open Internet Order* focused on research showing that this 2015 order preceded a historic period of investment and innovation across the entire internet – by broadband internet access service providers and "edge" providers alike.

We noted Free Press's compilation of broadband industry investment totals, as publicly traded broadband internet access service providers themselves reported or restated this data for the two years preceding the Commission's February 2015 vote and the two years following it. That data conclusively demonstrates that the investment total for all of these publicly traded ISPs together increased by 5.3 percent for the two-year period following reclassification and adoption of the open internet rules.[1]

Commenters (and Commissioners) who incorrectly claim some harm to broadband investment from Title II focus on supposed decreases in this aggregate figure, but the manipulated totals they cite stem from vague and unspecified tabulations for the broadband industry as a whole. These commenters also distort the amount invested by certain providers while ignoring freely available public statements explaining individual firms' decisions.[2]

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[1] *See* Comments of Free Press, WC Docket No. 17-108, at 129–130 & Fig. 24 (filed July 17, 2017) ("Free Press Comments").

[2] *See id.* at 145–151; *see also id.* at 151 (quoting AT&T's explanation that the company's costs were falling due to technological improvements and the efficiencies therefrom, not due to any regulatory concerns, as evidenced by the fact that AT&T was then "going to deploy more fiber next year than we did this year, but the capital requirements are going down").

Yet, even were these manipulated aggregate figures correct (and they are not), we explained that a myopic focus on raw dollars spent ignores the Commission's statutory mandate to promote deployment – and the overwhelming evidence that deployment continued (and even improved) in the years following the order.[3]

There are at least four major problems with fixating on aggregate broadband provider investment figures to the exclusion of all other metrics.

(1) The blunt measure of an aggregate total is easily swayed by changes in either direction at any large firm, and it obscures changes (if any) in investment decisions, cycles, and strategies by all of the individual firms that make up the aggregate. Looking at those individual results, the majority of publicly traded broadband providers (in their own financial disclosures) reported investment increases after the vote.[4] This fact alone does much to disprove the fanciful notion that Title II is a systemic threat or source of harm to investment across the entire industry. Even if we change the timeframe, dropping 2013 from the analysis and comparing the year prior to the vote with the two years that followed it, we see that twice as many individual ISPs increased their capital spending as the relative few that decreased it. The attached figure illustrates this fact, showing that individual ISPs increased their capital spending by as much as 56 percent in one case, and by double digits in several other cases (including Comcast's), with an average company capital expenditure growth rate of 6.8 percent.

(2) As Free Press has copiously documented,[5] again relying on broadband providers' own words in their investor disclosures, reports, and statements, there is no reason to think that the relatively few individual ISPs reporting less capital spending decreased it due to Title II. In fact, as AT&T itself made clear in filings made in earlier proceedings:

> "[T]here is no reason to expect capital expenditures to increase by the same amount year after year. Capital expenditures tend to be 'lumpy.' Providers make significant expenditures to upgrade and expand their networks in one year (*e.g.*, perhaps because a new generation of technology has just been introduced), and then focus the next year on signing up customers and integrating those new facilities into their existing networks, and then make additional capital expenditures later, and so on. Minor variations from year to year thus should not be surprising[.]"[6]

That is still true today. And broadband providers have spoken at length since the 2015 vote and reclassification decision about how they are leveraging technological advances to deploy higher capacities at a lower capital cost than was required in prior upgrade cycles. In the few instances when analysts asked these executives how Title II (or its potential repeal) impacted their company's investments, these executives did not say that Title II had a concrete impact on their own numbers, nor quantify how its repeal would impact their spending.[7]

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[3] *See* Reply Comments of Free Press, WC Docket No. 17-108, at 22–24 (filed Aug. 30, 2017) ("Free Press Reply Comments").
[4] *See* Free Press Comments at 130, Fig. 24.
[5] *See, e.g.*, *id.* at 209–281.
[6] Comments of AT&T, WT Docket No. 10-133, at 34 (filed July 30, 2010); *see also id.* at 39.
[7] *See* Free Press Reply Comments at 34.

(3) The Commission's Form 477 deployment data shows a remarkable level of new, higher capacity broadband deployments since the vote, across a range of different service territories and different technological platforms. The broadband industry's general trajectory was unaltered by the return to the proper classification of broadband as a telecom service.

Cable companies completed DOCSIS 3.0 upgrades and increased capital spending to push fiber deeper into their networks in preparation for DOCSIS 3.1-powered gigabit deployment. ILECs ramped up short-loop fiber-fed and full fiber-to-the-home ("FTTH") deployments to remain relevant in the face of cable's speed advantages as streaming video demand grows. Wireless carriers completed 4G LTE rollouts and 4G LTE-Advanced and other interim (and less costly) capacity enhancements, then set about readying for the pending pre-5G network densification – an upgrade cycle that will once again require higher capital spending.

While we continue to stress that this does not mean broadband deployment is satisfactory in every area, nor certainly that every person in America has access to affordable and robust service, we recounted briefly the kinds of deployment metrics and milestones shown in the Commission's own data and other sources since the February 2015 decision. For instance:

- The number of census blocks with two or more ISPs offering service with downstream speeds at or above 25 Mbps increased by 42 percent following the *Open Internet Order*.
- At the end of 2014, approximately one-third of the population had access to two or more ISPs offering 25 Mbps or higher-level services. By mid-2016, more than half of the population could purchase broadband at this speed threshold from two or more ISPs.
- At the end of 2014, only 10.5 percent of the population had access to one or more wired ISPs offering services at 300 Mbps downstream or more. By mid-2016, this had more than doubled to nearly 23 percent of the population.[8]
- In census blocks where cable DOCSIS 3.0 services are available, the average available speed of this technology increased by nearly 50 percent, from 118 Mbps to 173 Mbps. In blocks with FTTH, the average available speed of this technology increased from 251 Mbps to 380 Mbps (51 percent). And average available VDSL downstream speeds more than doubled, from 24 Mbps to 52 Mbps.[9]

(4) All of this evidence and more – on broadband investment, deployment, and capacity improvements – answers the utterly unsupportable charge in this docket's Notice of Proposed Rulemaking that Title II harmed the broadband industry. Yet it should go without saying that broadband investment and deployment are but one area of concern for this Commission. Broadband providers are thriving in terms of their own finances and perfomances, but they represent just one portion of the overall internet ecosystem, the entirety of which is experiencing historic growth, competition, and innovation. Investments in the network "edge," including those by online video providers and edge computing firms, are up sharply. Each sector of the internet economy is responding to demand, and that demand is the direct result of continued access to an open, nondiscriminatory telecommunications service transmission pathway.

[8] *See* Free Press Reply Comments at 21.
[9] *See* Free Press Comments at 96.

For example: in just the first year following the adoption of the 2015 *Open Internet Order*, census data showed a $3.5 billion jump in capital spending in the "data processing, hosting, and related services" sector. That 26 percent increase occurred in a sector that includes app hosting services like Amazon Web Services ("AWS") and video streaming services like Netflix.[10] Over-the-top ("OTT") video services, including those with the potential to compete against cable TV and other legacy multichannel video services, saw remarkable growth on the whole. The two years following restoration of Title II saw a 133 percent increase in new OTT services compared to the two years prior to the vote, with more U.S. OTT video services launching in those two years after the vote than in the seven preceding years combined.[11] And this growth in spending and entry came not only from companies like Netflix and Amazon themselves but from new entrants too, as well as incumbent multichannel video providers like AT&T and DISH developing new OTT services delivered for the first time outside of their physical footprints and sold to customers of other ISPs.[12]

In light of all of this evidence of the success of the current Net Neutrality rules, the popularity of these rules should come as no surprise. In the meeting with Commissioner Rosenworcel on Monday the 23rd, we touched on not only the economic data briefly catalogued above, but also the popular polling data summarized in OTI's analysis published the same day as this meeting.[13] As that analysis demonstrates, numerous surveys have shown that people of all political leanings support Net Neutrality and expect the protections enshrined in the Commission's 2015 *Open Internet Order*.

Respectfully submitted,

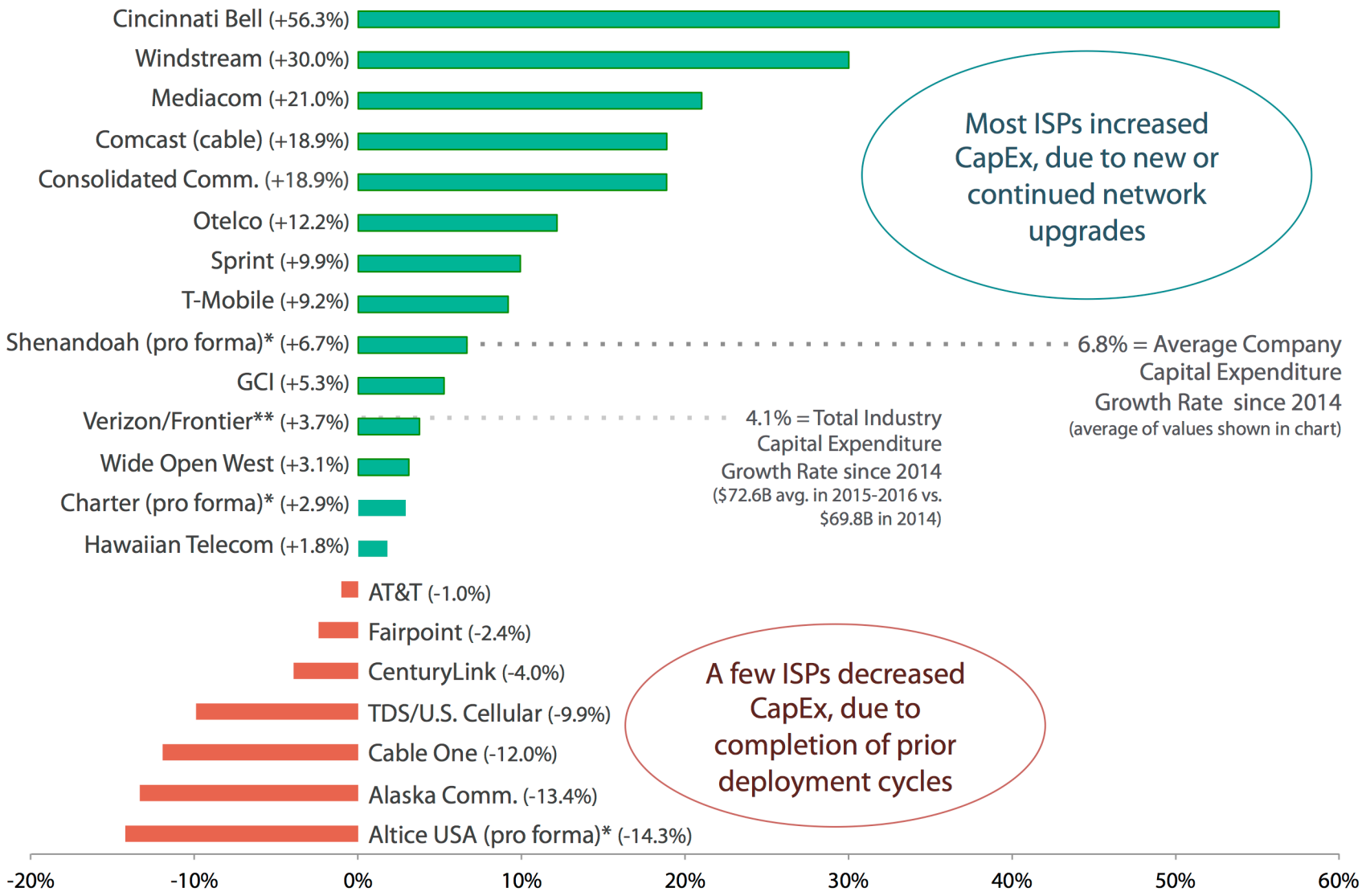
Matthew F. Wood
Policy Director
Free Press

cc: Travis Litman

[10] *See id.* at 173.
[11] *See id.* at 172.
[12] *See id.*
[13] Amir Nasr, "The American People Broadly Support Net Neutrality," *OTI Blog* (Oct. 23, 2017).

ISP Capital Expenditure Growth Following Title II Open Internet Order

(Percent Change in Capital Expenditures, 2015–2016 average vs. 2014)



Source: Company SEC Filings. See Free Press, "It's Working: How the Internet Access and Online Video Markets Are Thriving in the Title II Era," Figure 1 for details.

** Pro forma values as reported by each company (reflecting mergers of Shenandoah and nTelos; Charter and TWC and BHN; Altice N.L. acquisition of Cablevision and Suddenlink).*

***Value based on Verizon's and Frontier's combined capex, to reflect Verizon's asset sale to Frontier (stand-alone changes were +1.3% and +64.5% respectively; +9.3% average for all companies).*